

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A ~~recording~~ computer readable medium including ~~recorded data~~ a lead-in area, a data area and a lead-out area, comprising:

~~an information area for recording disc management information and/or data; and~~

physical mark information recorded as wobbled pits in an area ~~a specific area of the lead-in area~~ not writeable by end user recorders, ~~the area not writeable by end user recorders preceding a lead in area, the physical mark information identifying a type of the recording medium, and the lead in area including a high frequency modulated groove.~~

wherein the wobbled pits provide control information for controlling a reproduction of data recorded on the data area and are formed along a modulated unique pattern.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) A ~~The~~ recording computer readable medium according to claim 1, ~~wherein the physical mark information is recorded as mark/space with respect to a high-~~

~~frequency modulated groove wherein the modulated unique pattern represents encryption information used in encrypting data of the data area.~~

6. (Currently Amended) A ~~The recording computer readable~~ medium according to claim 5, wherein the control information further includes copy management information indicating whether duplication of the data is allowed. ~~mark/space are aligned with one another in each recording field of a high frequency modulated groove.~~

7. (Currently Amended) A ~~The recording computer readable~~ medium according to claim ~~56~~, wherein the physical mark information is recorded as at least one mark/space pair, wherein each mark/space pair includes a mark and a space each having an variable length.

8. (Currently Amended) A ~~The recording computer readable~~ medium according to claim ~~76~~, further includes disc identification information identifying a type of the computer readable medium, wherein the disc information is located in an area preceding the lead-in area and the type of computer readable medium is one of read-only, recordable and rewritable. ~~wherein each mark and space of the mark/space pairs are aligned with one another in each recording field of a high frequency modulated groove.~~

9. (Cancelled)

10. (Currently Amended) A ~~The recording computer readable~~ medium according to claim ~~48~~, wherein the physical mark information is recorded on a position of the recording

medium detectable at an initial stage of a servo operation carried out in an optical disc apparatus, separately from a decoding operation to be carried out in the optical disc apparatus.

11. (Currently Amended) ~~A The recording computer readable medium according to claim 48, wherein the physical mark information is recorded in an permanent information and control data (PIC) area of the Blu-ray Disc Read-Only (BD-RO) disc where writing of data is impossible after manufacture of the recording computer readable medium, ~~the physical mark information is a Blu-ray Disc Read-Only Memory (BD-ROM) identification area (ROMID), and the recording medium is a read-only recording medium.~~~~

12. (Cancelled)

13. (Currently Amended) A method of forming a recording medium, comprising:
forming an information area for recording disc management information and/or data;
and
forming physical mark information as wobbled pits in a specific area of a lead-in area of the recording medium, wherein the wobbled pits provide control information for controlling a reproduction of data recorded on a data area of the recording medium and are formed along a modulated unique pattern, wherein the modulated unique pattern represents encryption information used in encrypting data of the data area. ~~the physical mark information recorded in an areanot writeable by end user recorders, the physical mark information identifying a type of the recording medium, the area not writeable by end user recorders preceding a lead-in area, the physical mark information identifying a type of the recording medium, and the lead-in area including a high frequency modulated groove.~~

14. (Cancelled)

15. (Currently Amended) ~~A~~ The method of claim 13, further comprising:
recording disc identification information identifying a type of the recording medium in an
area preceding the lead-in area, wherein the type of the recording medium is one of read-only,
recordable and rewritable. ~~wherein the physical mark information is formed as mark/space with~~
~~respect to a high frequency modulated groove.~~

16. (Cancelled)

17. (Currently Amended) ~~A~~ The method of claim 13, wherein the forming step
forms the physical mark information is recorded on a position of the recording medium formed
~~to be being~~ detectable at an initial stage of a servo operation carried out in an optical disc
apparatus, separately from a decoding operation to be carried out in the optical disc apparatus.

18. (Currently Amended) ~~A~~ The method of claim 13, wherein the forming step
forms the physical mark information is formed in an area as wobbled pits including at least one
mark/space pair in a permanent information and control data (PIC) area of the Blu-ray Disc
Read-Only (BD-RO) disc where writing of data is impossible after manufacture of the recording
medium, the physical mark information is a Blu-ray Disc Read-Only Memory (BD-ROM)
identification area (ROMID), and the recording medium is a read-only recording medium.

19. (Currently Amended) ~~A~~ The method of claim 1315, wherein the physical mark information is recorded in at least a portion of an area of the disc where writing of data is possible only once after manufacture of the recording medium such that the portion becomes the area not writeable by end user recorders, the physical mark information is a Blu-ray Disc Recordable (BD-R) identification area (RID), and the recording medium is a write-once recording medium, further comprising:

recording copy management information indicating whether duplication of the data is allowed on the recording medium.

20. (Currently Amended) A method of reproducing data from a recording medium, including a lead-in area, a data area and a lead out-area comprising:

utilizing detecting physical mark information recorded as wobbled pits in a specific area of the lead-in area not writable by end user recorders, the wobbled pits being formed along a modulated unique pattern; and

to control controlling a reproduction of the recorded data from the data area based on the detected physical mark information, ~~wherein the physical mark information has been recorded in an area not writeable by end user recorders, the area not writeable by end user recorders preceding a lead-in area, the physical mark information identifying a type of the recording medium, and the lead-in area including a high frequency modulated groove.~~

21. (Cancelled)

22. (Currently Amended) ~~A-The method of claim 20, wherein the physical mark information has been recorded as mark/space with respect to a high frequency modulated groove, further comprising:~~

reading disc identification information identifying a type of the recording medium from an area preceding the lead-in area, wherein the type of the recording medium is one of read-only, recordable and rewritable.

23. (Currently Amended) ~~A-The method of claim 22, wherein the detecting step detects the physical mark information recorded in a permanent information and control data (PIC) area of the Blu-ray Disc Read-Only (BD-RP) disc where writing of data is impossible after manufacture of the recording medium, wherein the mark/space are aligned with one another in each recording field of a high frequency modulated groove.~~

24. (Currently Amended) ~~A-The method of claim 2023, wherein the controlling step controls the reproduction by utilizing the detected physical mark information formed along the modulated unique pattern which represents encryption information used in encrypting data of the data area, physical mark information is recorded on a position of the recording medium detectable at an initial stage of a servo operation carried out in an optical disc apparatus, separately from a decoding operation to be carried out in the optical disc apparatus.~~

25-40. (Cancelled)

41. (New) The method of claim 24, wherein the controlling step further controls a reproduction of a recording medium by utilizing copy management information recorded on the

recording medium indicating whether duplication of data is allowed in such a manner that the reproduction is performed if the duplication is allowed.

42. (New) An apparatus for reproducing data from a recording medium including a lead-in area, a data area and a lead-out area, comprising:

an optical pickup configured to detect physical mark information recorded as wobbled pits in a specific area of the lead-in area not writable by end user recorders, the wobbled pits being formed along a modulated unique pattern; and

a controller configured to control a reproduction of recorded data from the data area based on the detected physical mark information,

43. (New) The apparatus of claim 42, wherein the optical pickup is configured to read disc identification information identifying a type of the recording medium from an area preceding the lead-in area, wherein the type of the recording medium is one of read-only, recordable and rewritable.

44. (New) The apparatus of claim 43, wherein the optical pickup is configured to detect the physical mark information recorded in a permanent information & control data (PIC) area of the Blu-ray Disc Read-Only (BD-RO) disc where writing of data is impossible after manufacture of the recording medium

45. (New) The apparatus of claim 44, wherein the controller is configured to control the reproduction by utilizing the detected physical mark information formed along the modulated unique pattern which represents encryption information used in encrypting data of the data area.

46. (New) The apparatus of claim 45, wherein the controller is configured to control the optical pickup to reproduce data based on copy management information recorded on the recording medium, the copy management information indicating whether duplication of data is allowed.